

Appl. No. 10/092,792
Amtd. dated August 10, 2004
Reply to Office Action of June 29, 2004

Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A silicoaluminophosphate molecular sieve comprising at least one intergrown phase of molecular sieves having AEI and CHA framework types, wherein said intergrown phase has an AEI/CHA ratio of from about 5/95 to 40/60 as determined by DIFFaX analysis and having no reflection peak in the 9.8 to 12.0 (2θ) range, using the powder X-ray diffraction pattern of a calcined sample of said silicoaluminophosphate molecular sieve.
2. (Original) The silicoaluminophosphate molecular sieve of claim 1, wherein said intergrown phase has an AEI/CHA ratio of from about 7/93 to 38/62.
3. (Original) The silicoaluminophosphate molecular sieve of claim 1, wherein said intergrown phase has an AEI/CHA ratio of from about 8/92 to 35/65.
4. (Original) The silicoaluminophosphate molecular sieve of claim 1, wherein said intergrown phase has an AEI/CHA ratio of from about 9/91 to 33/67.
5. (Currently Amended) The silicoaluminophosphate molecular sieve of claim 1 wherein the molecular sieve having CHA framework type is SAPO-34.
6. (Currently Amended) The silicoaluminophosphate molecular sieve of claim 1 wherein the molecular sieve having AEI framework type is SAPO-18, ALPO-18 or a mixture of SAPO-18 and ALPO-18.

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7. (Original) The silicoaluminophosphate molecular sieve of claim 1 wherein said silicoaluminophosphate molecular sieve has an X-ray diffraction pattern having at least one reflection peak in each of the following ranges in the 5 to 25 (2θ) range:

2θ (CuK α)
9.3 - 9.6
12.7 - 13.0
13.8 - 14.0
15.9 - 16.1
17.7 - 18.1
18.9 - 19.1
20.5 - 20.7
23.7 - 24.0

8. (Cancelled)

9. (Currently Amended) The silicoaluminophosphate molecular sieve of claim 5 7 wherein the X-ray diffraction pattern has no broad feature centered at about 16.9 (2θ).

10. (Cancelled)

11. (Currently Amended) The silicoaluminophosphate molecular sieve of claim 6 7 wherein the reflection peak in the 17.7 - 18.1 (2θ) range has a relative intensity between 0.09 and 0.40 with respect to the reflection peak at 17.9 (2θ) in the diffraction pattern of SAPO-34, all diffraction patterns being normalized to the intensity value of the reflection peak in the 20.5-20.7 (2θ) range.

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12. (Original) The silicoaluminophosphate molecular sieve of claim 11 wherein the reflection peak in the 17.7 - 18.1 (2θ) range has a relative intensity between 0.10 and 0.35 with respect to the reflection peak at 17.9 (2θ) in the diffraction pattern of SAPO-34,

13. (Original) The silicoaluminophosphate molecular sieve of claim 1 wherein the silica to alumina molar ratio ($\text{SiO}_2/\text{Al}_2\text{O}_3$) ranges from 0.01 to 0.25.

14. (Original) The silicoaluminophosphate molecular sieve of claim 13 wherein the silica to alumina molar ratio ($\text{SiO}_2/\text{Al}_2\text{O}_3$) ranges from 0.02 to 0.20.

15. (Original) The silicoaluminophosphate molecular sieve of claim 13 wherein the silica to alumina molar ratio ($\text{SiO}_2/\text{Al}_2\text{O}_3$) ranges from 0.03 to 0.19.

16. (Original) The silicoaluminophosphate molecular sieve of claim 1, wherein the molecular sieve is comprised of crystalline plates, platelets or stacked platelets.

17. (Original) The silicoaluminophosphate molecular sieve of claim 16. Wherein the average smallest crystal dimension of the molecular sieve is less than 0.1 micron.

18. (Original) A catalyst comprising the silicoaluminophosphate molecular sieve of claim 1 and a binder.

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

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26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)